

A new species of *Rorippa* (Brassicaceae) from southern Western Australia

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Abstract

Keighery, G.J. A new species of *Rorippa* (Brassicaceae) from southern Western Australia. *Nuytsia* 18(1): 79–82 (2008). The Western Australian populations of *Rorippa dictyosperma* (Hook.) L.A.S.Johnson are segregated as a new species, *R. cygnorum* Keighery *sp. nov.*

Introduction

This paper is one of a continuing series on the taxonomy of the native and naturalised Brassicaceae of Western Australia.

Rorippa Scop. (Brassicaceae) is closely related to *Cardamine* L., *Aradidopsis* Heyne and *Nasturtium* W.T.Aiton. The last genus is often included in a broadly defined *Rorippa*. In this sense *Rorippa* is a cosmopolitan genus of approximately 75 species and has four endemic and three introduced species in Australia (Johnson 1962; Hewson 1982). There are three species recorded for Western Australia, two native and one introduced. The sole native species of *Rorippa* currently recorded for southern Western Australia, *R. dictyosperma* (Hook.) L.A.S.Johnson, also occurs in New South Wales, Victoria and Tasmania (Hewson 1982). The type collection of *Rorippa dictyosperma* is from Tasmania, viz. *R.C. Gunn* 80, 401 (K, photo seen).

The Western Australian form of *Rorippa dictyosperma* differs from Eastern Australian populations in being an annual, with shorter, thicker pedicels (4–8 vs 10–20 mm), a much shorter style (2 vs. 4 mm) and much finer reticulation on the seed. Hewson (1982) and Johnson (1962 and in litt.) suggested that the Western Australian populations should be recognised as a separate taxon, but did not formalise this separation. These character differences warrant taxonomic recognition and the Western populations are described here as a new species, *R. cygnorum* Keighery.

Taxonomy

Rorippa cygnorum* Keighery, *sp. nov.

Rorippa dictyospermae affinis sed habitu annuo, stylo brevi vel brevissimo, pedicello crasso brevi, testa subtiliter reticulata differt.

Typus: Porongurup Range [precise locality withheld for conservation reasons], 3 December 1988, G.J. Keighery 10416 (*holo*: PERTH 4400208; *iso*: CANB, K).

Erect annual herb, 30–90 cm tall, rarely decumbent. *Leaves* petiolate; basal leaves pinnatisect, to 20 cm long, with large terminal lobe, the lateral segments few, ovate or oblong, entire or toothed, stem leaves reducing to lanceolate, entire, petiolate. *Sepals* 2.5–5 mm long, petals 5–10 mm long, white. *Stamens* 6, style 2 mm long. *Siliqua* straight or slightly curved, 25–60 mm long, 1–2 mm wide ascending; pedicel spreading to reflexed, 4–8 mm long; seeds in one row per loculus, not mucilaginous when wet, very finely reticulate, ovoid to oblong, 1–2 mm long. (Figure 1)

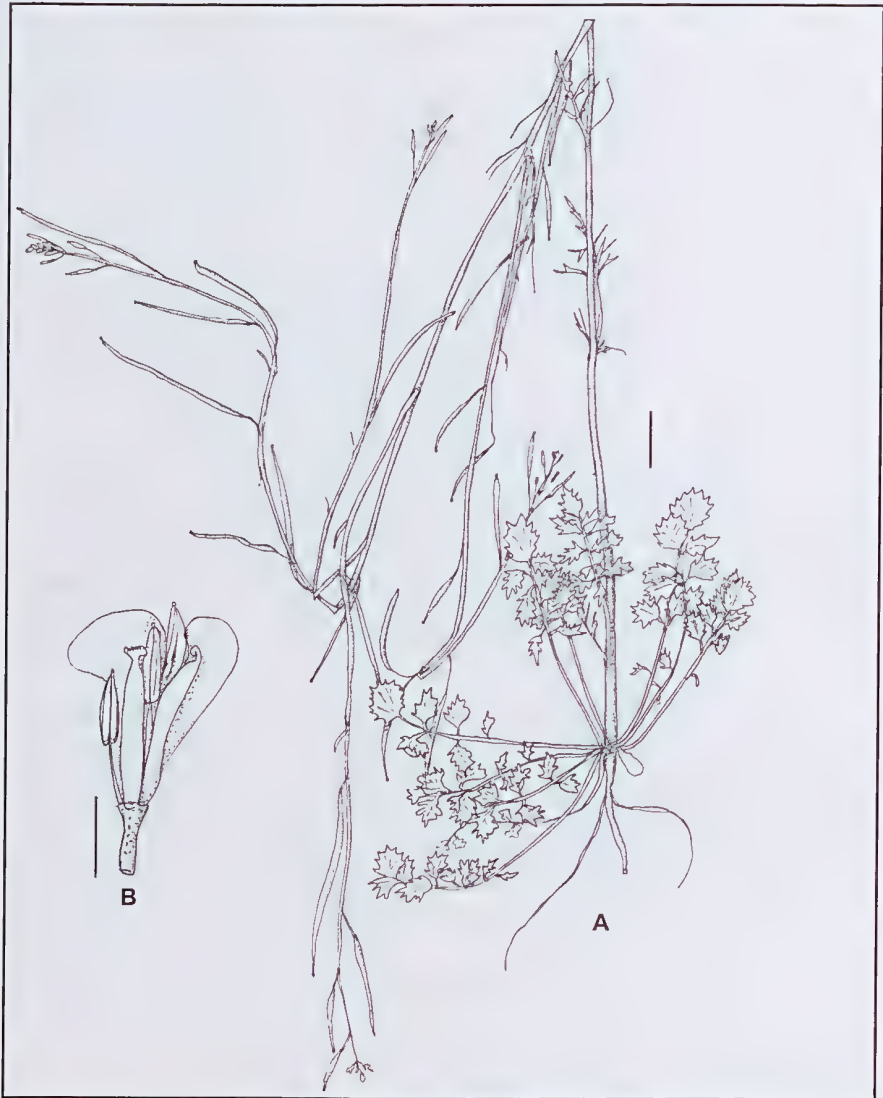


Figure 1. *Rorippa cygnorum* (both from B. & G. Keighery 1122). A – whole plant; B – flower with half floral parts removed to show anthers and style. Scale bars: A = 20 mm; B = 2 mm.

Selected specimens examined. WESTERN AUSTRALIA: [localities withheld] 29 Nov. 1990, *A.R. Annels* 1399 (PERTH); 30 Nov. 1994, *A.R. Annels & R.W. Hearn* 5066 (PERTH); [without locality], *s.dat.*, *J. Drummond* 94 (MEL); 14 Jan. 1989, *G.J. Keighery* 11945 (PERTH); 1 Nov. 2007, *G. & B. Keighery* 1122 (PERTH); 26 Aug. 1997, *K.A. Redwood* 586 (PERTH); Oct. 1867, *F. von Mueller* (MEL 93091); *s. dat.*, *P. Walcott s.n.* (MEL).

Distribution. Recorded in a series of disjunct populations from the Porongurup Range to north of Walpole in the Jarrah Forest and Warren biogeographic regions (Figure 2).

Habitat. Occurs on moss swards on granite rocks or along seepage lines below granites, the latter in the eastern part of the range (e.g. Porongurup Range), especially after summer fires. In eastern Australia, the related *Rorippa dictyosperma* occurs in forests and woodlands from the coast to subalpine areas (Entwisle 1996).

Flowering period. Flowers in late spring to early summer, from late November to January. Mature fruits and seeds are present from December to February.

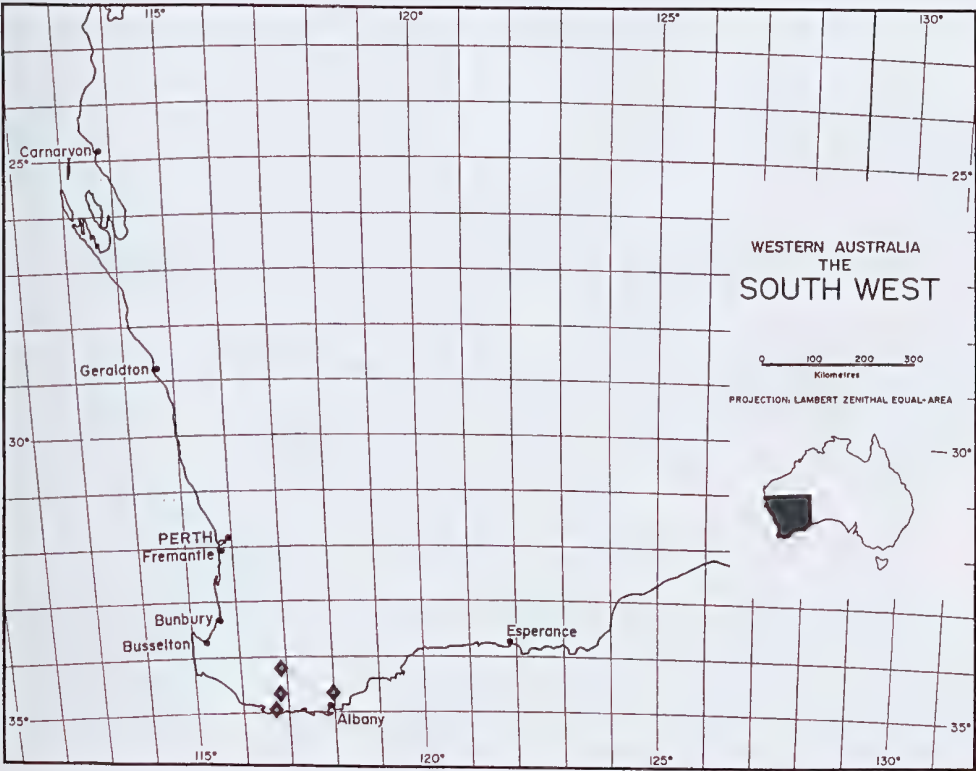


Figure 2. Distribution of *Rorippa cygnorum* in southern Western Australia.

Conservation status. Listed as Priority Two under Department of Environment and Conservation (DEC) Conservation Codes for Western Australian Flora by Atkins (2008) under the name *R. dictyosperma*.

Etymology. From the Latin *cygnus* (swan), in reference to the original name for Perth, the Swan River Colony.

Notes. The common name for *Rorippa dictyosperma* in Eastern Australia is Forest Bitter Cress, the name Western Bitter Cress is suggested for this species.

Acknowledgements

The author was able to examine type material of *Rorippa dictyosperma*, and other collections at MEL with the assistance of the former Curator of Melbourne Herbarium, Jim Ross. Thanks are also due to the other bodies (Environment Australia (now Department of Environment and Heritage) and the Australian Heritage Commission) who funded the many biological surveys noted herein.

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